

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AUTONOMOUS DEVICES, LLC,)
)
Plaintiff,)
)
v.) C.A. No. 22-1466 (MN)
)
TESLA, INC.,)
)
Defendant.)

**OPENING BRIEF IN SUPPORT OF DEFENDANT'S
MOTION TO DISMISS UNDER RULE 12(b)(6)**

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I. STAGE AND NATURE OF PROCEEDINGS

On November 7, 2022, Autonomous Devices LLC (“Plaintiff”) filed this lawsuit accusing Tesla, Inc. (“Tesla”) of infringing U.S. Patent Nos. 10,102,449; 11,055,583; 10,452,974; 11,238,344; 10,607,134; and 11,113,585. Tesla moves to dismiss the Complaint in its entirety under Rule 12(b)(6) because all asserted patent claims are ineligible under 35 U.S.C. § 101.

II. SUMMARY OF THE ARGUMENT

1. The asserted patents¹ are directed to the abstract idea of performing a task by matching a current circumstance with a previously learned circumstance. The asserted claims broadly recite the functions of learning instructions for specific circumstances, comparing a current circumstance with those previous circumstances, and performing the learned instructions. But humans have done this for millennia; merely adding a computer does not make this abstract idea patentable. In this case, unlike cases where the Federal Circuit has found claims patent eligible, “the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). Here, the claims do not recite any “inventive technology for performing [the claimed] functions.” *Id.* Indeed, the asserted patents highlight that the disclosed systems “comprise[] **any hardware, programs, or combination thereof**,” ’449 Patent, 70:30-31 (emphasis added), and that “[t]he disclosed systems, devices, [and] methods are **independent of the artificial intelligence model and/or technique used and any model and/or technique can be utilized** to facilitate the functionalities described,” *id.* at 95:32-47 (emphasis added).

¹ There is substantial overlap between the specifications of the asserted patents, and the differences are not relevant to the eligibility issues addressed in this motion.

2. The asserted claims further lack an inventive concept. None of the asserted claims has “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217-218 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Lab’ys., Inc.*, 566 U.S. 66, 72-73 (2012)). “The claims in this case do not [] require a new source or type of information, or new techniques for analyzing it … [and] do not invoke any assertedly inventive programming.” *Elec. Power Grp.*, 830 F.3d at 1355. Rather, the asserted claims in this case “merely call for performance of the claimed [learning, comparing, and performing] functions ‘on a set of generic computer components.’” *Id.*

3. Dismissal under Rule 12(b)(6) is proper. Resolving eligibility on the pleadings minimizes “expenditure of time and money by the parties and the court,” guards against “vexatious infringement suits,” and “protects the public” from illegitimate patents that improperly monopolize the public store of knowledge. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 719 (Fed. Cir. 2014) (Mayer, J., concurring) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 558 (2007)). Because all asserted claims are invalid under § 101, and because leave to amend would be futile, Tesla requests dismissal of all of Plaintiff’s claims with prejudice.

III. STATEMENT OF FACTS

The ’974, ’344, ’449, and ’583 patents claim autonomous operation of a “device” (the “Autonomous Device Patents”), while the ’134 and ’585 patents claim autonomous operation of a digital “avatar” or “object” of an application rather than a physical device (the “Autonomous Application Patents”). D.I. 1 (“Compl.”) ¶¶ 44-45, 58-60, 73. The asserted patents further claim different learned correlations. These differences are summarized in the table below.

	'449 and '583 patents	'974 and '344 Patents	'134 patent	'585 patent
Learned Correlation	Digital pictures with instructions	Circumstances with instructions	Object representations with instructions	Digital pictures with instructions
Autonomous Operation	Device	Device	Digital object	Digital avatar

Figure 31 of the '449 patent, reproduced below, illustrates the claimed functionality:

1) correlating pictures with instructions and storing those correlations (i.e., learning); 2) receiving a new picture; 3) comparing the new picture with the stored pictures; and 4) executing an instruction for operating the device (i.e., imitation). The '974, '344, '583, '134, and '585 patents have a substantially similar figure illustrating the claimed functionality. '974 Patent, Fig. 32; '344 Patent, Fig. 32; '583 Patent, Fig. 31; '134 Patent, Fig. 30; '585 Patent, Fig. 28.

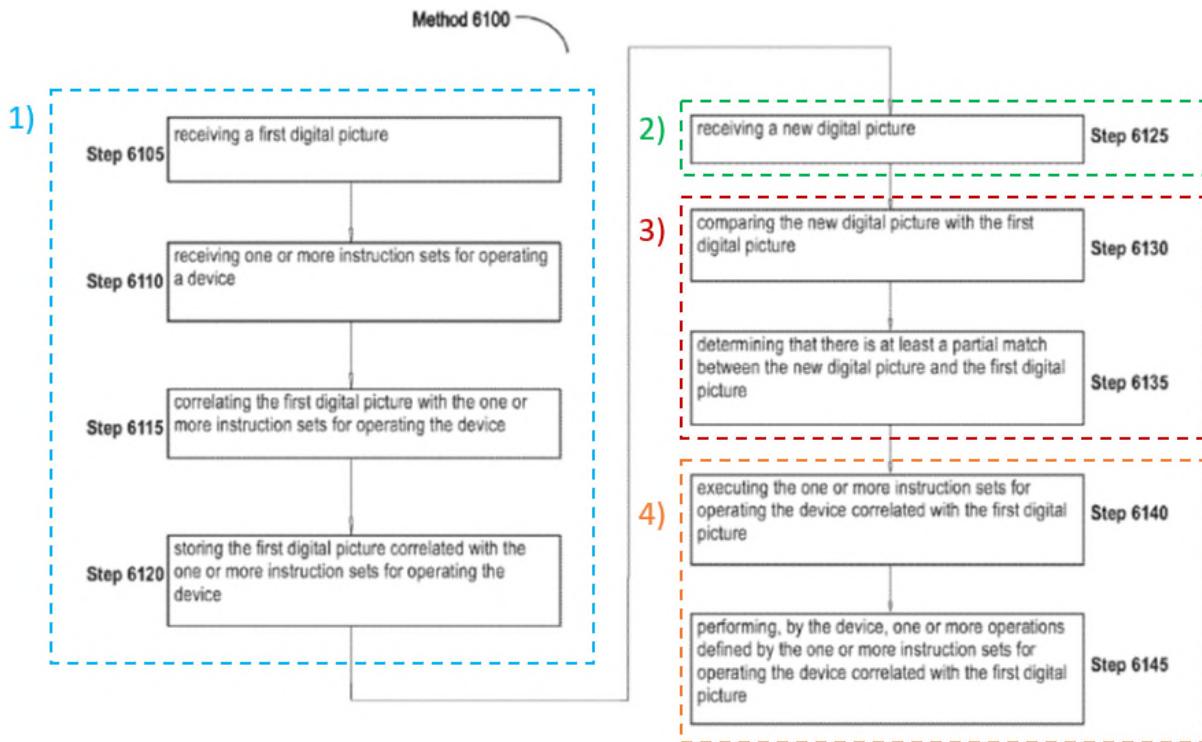


FIG. 31

'449 Patent, Fig. 31 (annotated)

As referenced above, the '449, '583, and '585 patents claim “digital pictures” correlated with instructions, whereas the '134 patent claims “object representations” correlated with instructions, and the '974 and '344 patents claim “circumstances”² correlated with instructions. *See* '449 Patent, 160:32-34; '583 Patent, 160:52-54; '585 Patent, 172:20-22; '974 Patent, 169:40-42; '344 Patent, 174:37-39; '134 Patent, 171:48-50.

The asserted patents also refer to a Unit 100 that “comprises learning, anticipating, decision making, automation, and/or other functionalities disclosed herein.” '449 Patent, 70:49-51, Fig. 2; *see also* '974 Patent, 81:5-7; '583 Patent, 70:64-66; '134 Patent, 82:36-38; '585 Patent, 83:37-39. The Unit 100 “comprises **any hardware, programs, or a combination thereof.**” '449 Patent, 70:30-31 (emphasis added); *see also* '974 Patent, 80:50-52; '583 Patent, 70:45-46; '134 Patent, 82:4-6; '585 Patent, 83:15-16. Each patent also provides a nearly identical description of a generic learning/comparison unit called an “Artificial Intelligence Unit 110” that is part of the Unit 100, and “comprises the functionality for learning one or more digital pictures correlated with any instruction sets, data, and/or other information … [and] the functionality for anticipating one or more Instruction Sets 526 to be used or executed in Device’s 98 autonomous operation.” '449 Patent, 88:45-89:2; *see also* '974 Patent, 96:27-52; '583 Patent, 88:62-89:19; '134 Patent, 98:14-55; '585 Patent, 99:64-100:23. The asserted patents explain that the Artificial Intelligence Unit can include “**any data structure or arrangement capable of storing the knowledge** of a device’s operation in circumstances including objects with various properties.” '449 at Patent, 95:3-9 (emphasis added). Furthermore, the asserted patents do not claim any specifics of the Artificial Intelligence Unit because “[t]he disclosed systems, devices, and methods are **independent of the**

² A “circumstance” simply comprises detected “objects with various properties.” '974 Patent, 72:18-26; '134 Patent, 69:5-7.

artificial intelligence model and/or technique used and any model and/or technique can be utilized to facilitate the functionalities described herein.” ’449 Patent, 95:32-47 (emphasis added).³

IV. ARGUMENT

A. Representative Claims

The Court need not address each individual claim when there are representative claims and “all the claims are ‘substantially similar and linked to the same abstract idea.’” *Content Extraction & Transmission LLC v. Wells Fargo Bank Nat'l Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014). The Complaint asserts the following claims: ’974 Patent (claims 1, 14, 18); ’344 Patent (claims 1, 3); ’449 Patent (claims 1, 17); ’583 Patent (claim 4); ’134 Patent (claim 1); ’585 Patent (claim 1). Claim 1 of the ’449 patent is representative of the Autonomous Device Patents, while claim 1 of the ’585 patent is representative of the Autonomous Application Patents.

The representative claims are reproduced below, and the attached Exhibit 1 includes a similarly color-coded reproduction of each asserted claim for reference herein.

'449 Patent, Claim 1	'585 Patent, Claim 1
<p>1. A system for autonomous device operating, the system comprising:</p> <p>one or more processor circuits;</p> <p>a memory that stores at least a first one or more digital pictures correlated with a first one or more instruction sets for operating a first physical device, wherein the first physical device includes an actuator for moving at least a portion of the first physical device, and wherein at least a portion of the first one or more digital pictures or at least a portion of the first one or more instruction sets for operating the first physical device are learned in a learning process that includes</p>	<p>1. A system comprising:</p> <p>one or more processors; and</p> <p>one or more memories that store at least a first one or more digital pictures correlated with a first one or more instruction sets for operating a first object of a first application program, wherein the one or more processors are configured to perform at least:</p> <p>receiving or generating a new one or more digital pictures that depict at least a portion of a surrounding of: the first object of the first application program, a second object of the</p>

³ See also ’974 Patent, 102:8-15, 103:26-41; ’583 Patent, 95:20-26, 95:49-64; ’134 Patent, 103:41-48, 104:65-105:13; ’585 Patent, 105:50-56, 107:5-20.

'449 Patent, Claim 1	'585 Patent, Claim 1
<p>operating the first physical device at least partially by a user;</p> <p>an optical camera that captures digital pictures; and</p> <p>an artificial intelligence unit that:</p> <p>receives a new one or more digital pictures from the optical camera;</p> <p>anticipates the first one or more instruction sets for operating the first physical device based on at least partial match between the new one or more digital pictures and the first one or more digital pictures, wherein the anticipates includes at least one of:</p> <p>determining that a number of at least partially matching portions of the new one or more digital pictures and portions of the first one or more digital pictures exceeds a threshold number, or determining that a percentage of at least partially matching portions of the new one or more digital pictures and portions of the first one or more digital pictures exceeds a threshold percentage; and</p> <p>causes the one or more processor circuits to execute the first one or more instruction sets for operating the first physical device, wherein the causes is performed in response to the anticipates of the artificial intelligence unit, and wherein the first physical device or a second physical device autonomously performs one or more operations defined by the first one or more instruction sets for operating the first physical device.</p>	<p>first application program, or a first object of a second application program;</p> <p>determining the first one or more instruction sets for operating the first object of the first application program based on at least partial match between the new one or more digital pictures and the first one or more digital pictures; and</p> <p>at least in response to the determining, executing the first one or more instruction sets for operating the first object of the first application program, wherein the first object of the first application program, the second object of the first application program, or the first object of the second application program autonomously performs one or more operations defined by the first one or more instruction sets for operating the first object of the first application program.</p>

1. Autonomous Device Patents ('449 Patent, claim 1)

Claim 1 of the '449 patent recites the same generic computer components present in the other asserted Autonomous Device Patent claims: “one or more processor circuits,” “a memory,” a “first physical device [that] includes an actuator,” an “optical camera,” and an “artificial

intelligence unit.” The other Autonomous Device Patent claims likewise recite “processor circuits”/“processors,” a “memory”/“non-transitory machine readable media,” and generic “device[s].” The ’974 patent and ’344 patent claims further recite a “sensor,” which may be an optical camera. ’974 Patent, 69:45-46. No other components are recited in the Autonomous Device Patents. Claim 1 of the ’449 patent also recites the functionality included in the other Autonomous Device Patent claims. These common elements are color-coded in Exhibit 1 and described below.

The first common limitation is annotated in **blue**: “a memory that stores at least a first one or more digital pictures correlated with a first one or more instruction sets for operating a first physical device … and wherein at least a portion of the first one or more digital pictures or at least a portion of the first one or more instruction sets for operating the first physical device are learned in a learning process that includes operating the first physical device at least partially by a user.” ’449 Patent, 106:32-41. The ’974 patent and ’344 patent asserted claims differ in that they recite a “first circumstance … detected at least in part by one or more sensors of the first device” (’344 Patent, claim 1), which may include “object representations” (’974 Patent, claim 14). Nonetheless, claim 1 of the ’449 patent is representative because a camera is an example of a sensor (’974 Patent, 69:45-46), and a digital picture is an example of a “circumstance” detected by a sensor.

The second common limitation is annotated in **green**: “receives a new one or more digital pictures from the optical camera.”

The third common limitation is annotated in **red**: “anticipat[ing] the first one or more instruction sets for operating the first physical device based on at least partial match between the new one or more digital pictures and the first one or more digital pictures.”

The fourth common limitation is annotated in **orange**: “caus[ing] the one or more processor circuits to execute the first one or more instruction sets for operating the first physical device,

wherein the causes is performed in response to the anticipates [sic] of the artificial intelligence unit, and wherein the first physical device or a second physical device autonomously performs one or more operations defined by the first one or more instruction sets for operating the first physical device.”

Claim 1 of the '449 patent recites the same generic components and the same functional limitations as the other Autonomous Device Patent claims. This claim is thus representative in that, if it is ineligible, the other Autonomous Device Patent claims are also ineligible.

2. Autonomous Application Patents ('585 Patent, claim 1)

The asserted claims of the Autonomous Application Patents are similar to the claims of the Autonomous Device Patents, except for three differences: 1) they do not recite “sensor” or “camera” components; 2) they do not explicitly recite that the correlations are “learned in a learning process”; and 3) they recite automating a digital object or avatar of an application rather than a device. The claim limitations are color-coded in Exhibit 1, and correspond to the functionality claimed in the Autonomous Device Patents, with the three exceptions already noted.

Claim 1 of the '585 patent recites the same generic computer components—“one or more processors” and “one or more memories”—and the same functionality set forth in claim 1 of the '134 patent. These claims only differ in that claim 1 of the '134 patent recites “object representations” correlated with instruction sets for operating an “avatar of an application,” whereas claim 1 of the '585 patent recites “digital pictures” correlated with instruction sets for operating an “object of an application program.”

Because claim 1 of the '585 patent recites the same generic components and performs the same functionality as claim 1 of the '134 patent, it is representative.

B. Alice Step One: The Asserted Claims Are Directed to Abstract Ideas

1. Autonomous Device Patents ('974, '344, '449, '583 Patents)

The Autonomous Device Patent claims fail *Alice* step one because they are directed to the abstract idea of performing a task based on matching a current circumstance with a previous learned circumstance. As discussed above, the Autonomous Device Patents broadly recite: **1**) learning by correlating pictures⁴ with instructions and storing those correlations; **2**) receiving a new picture; **3**) comparing the new picture with the stored pictures; and **4**) executing an instruction for operating the device. This characterization of what the claims are “directed to” is precisely how Plaintiff characterizes the claims in the Complaint. *See* Compl. ¶¶ 44-45, 58-60.

Limitations **1** and **2** of representative claim 1 of the '449 patent require collecting and storing data (i.e., digital pictures), which courts have routinely held to be an abstract concept. “The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.” *Content Extraction*, 776 F.3d at 1347; *see also SynKloud Techs., LLC v. HP Inc.*, 490 F. Supp. 3d 806, 814 (D. Del. 2020) (“The Federal Circuit has established that the storage and retrieval of information is an abstract concept.”). That the claims are directed to a particular type of data—“digital pictures” or “circumstances”—does not change that they are directed to abstract ideas. *See Elec. Power Grp.*, 830 F.3d at 1353 (“[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.”).

Limitation **1** in representative claim 1 of the '449 patent also recites “wherein at least a portion of the first one or more digital pictures or at least a portion of the first one or more

⁴ The patents also permit correlation based on “circumstances” instead of pictures, which does not alter the 101 analysis.

instruction sets for operating the first physical device *are learned in a learning process that includes operating the first physical device at least partially by a user.*” ’449 Patent, 160:36-41 (emphasis added). The claim does not limit what “learn[ing] in a learning process” entails beyond that it includes operation of the physical device by a user. The specification describes that “learning” may comprise “correlating the first digital picture with the one or more instruction sets for operating the device.” ’449 Patent, 6:60-64. The specification further describes that correlation may comprise identifying that an action was performed at around the same time as a digital picture. *See* ’449 Patent, 3:33-4:7, 91:22-25. The “learning” of limitation 1 thus encompasses, but is not limited to, matching two sets of data (instructions and digital pictures) due to the same timestamp, i.e., the abstract idea of “determining … whether [a first set of data] matches a characteristic of [a second set of data].” *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1317 (Fed. Cir. 2021).

Limitation 3 of representative claim 1 of the ’449 patent recites “anticipat[ing] the first one or more instruction sets for operating the first physical device based on at least partial match between the new one or more digital pictures and the first one or more digital pictures.” Claim 1 of the ’449 patent further recites that anticipating includes “at least one of: determining that a number of at least partially matching portions of the new one or more digital pictures and portions of the first one or more digital pictures exceeds a threshold number, or determining that a percentage of at least partially matching portions of the new one or more digital pictures and portions of the first one or more digital pictures exceeds a threshold percentage.” Despite its verbosity, this step merely recites comparing two pictures to determine whether they satisfy a threshold level of similarity. As shown in the below excerpt from *PersonalWeb Techs. LLC v. Google LLC*, the Federal Circuit has held that comparing information for matching or similar characteristics is an abstract concept:

[T]he step of comparing the content-based identifier against other values ... is also abstract. For example, the *Symantec* claims required “determining ... whether each received content identifier matches a characteristic of other identifiers.” *[Intell. Ventures I LLC v. Symantec Corp.,]* 838 F.3d [1307,] 1313 [(Fed. Cir. 2016)]. There, as here, this is the “abstract idea of 1) collecting data[] [and] 2) recognizing certain data within the collected data set.” *Id.* at 1314–15 (quoting *Content Extraction*, 776 F.3d at 1347). That’s a mental process.

8 F.4th at 1317.

Limitation 4 requires executing an instruction to autonomously perform operation of a device. ’449 Patent, claim 1 (“causes the one or more processor circuits to *execute the first one or more instruction sets for operating the first physical device*, ... wherein the first physical device or a second physical device *autonomously* performs one or more operations defined by the first one or more instruction sets for operating the first physical device”) (emphasis added). As described in the specification, the “instruction sets for operating the [first physical] device”—i.e., the action—“includes *any* operation ... *with or by* a computing enabled machine.” ’449 Patent, 148:20-45 (emphasis added); *see also id.* (“[W]hile all possible variations of operations on a device are too voluminous to list and limited only by the device’s design and/or user’s utilization, other operations are within the scope of this disclosure in various implementations.”). Thus, limitation 4 merely entails the abstract idea of performing a manual task “autonomously.” *See Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (“Our prior cases have made clear that mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.”).

The present claims are similar to those found ineligible in *S.I.SV.EL. Societa Italiana per lo Sviluppo Dell’Elettronica S.p.A v. Rhapsody Int’l Inc.*, No. CV 18-69-MN-CJB, 2019 WL 1102683 (D. Del. Mar. 8, 2019). In *Societa*, the challenged claims recited a method of recommending an item to a user, comprising the steps of “*observing* one or more environmental characteristics,” “*learning* preferences of said user for each item ... under said one or more

observed environmental characteristics,” and “*generating* a recommendation score for said item based on ... said learned preferences of said user under said one or more observed environmental characteristics.” *Id.* at *5 (emphasis added). The court concluded that the claims were directed to the abstract idea of “recommending an item based on a user’s environment.” *Id.* at *6. The court noted that “with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.” *Id.* at *7 (quoting *Symantec*, 838 F.3d at 1318). Here, too, the claims merely recite correlating circumstances with instructions (i.e., learning) and executing those instructions on generic computer components when encountering similar circumstances (i.e. imitation), which humans have always performed. For example, a child may learn by watching her parents pick strawberries that red strawberries (a circumstance) are ripe and should be picked (an instruction). The claims merely recite this fundamental human practice using generic computer components. *See Alice*, 573 U.S. at 223 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”).

Notably, the specification confirms that the asserted patents do not provide any technological improvement to the way in which the learning is performed by the generic computer components. *See* '449 Patent, 95:32-39 (“Referring to FIG. 16, the disclosed artificially intelligent systems, devices, and methods for learning and/or using visual surrounding for autonomous device operation may include various artificial intelligence models and/or techniques. The disclosed systems, devices, and methods are *independent of the artificial intelligence model and/or technique used and any model and/or technique can be utilized* to facilitate the functionalities described herein.”) (emphasis added).

Plaintiff asserts that the claims are directed to non-abstract ideas because they “provide

technical solutions” to problems related to “coded responses, lack of training set diversity, and user operation corresponding to the correlated circumstances and instructions in the knowledgebase.” Compl. ¶¶ 49, 64 (citing Saber Decl. ¶¶ 44, 56). As explained below, Plaintiff’s position is contrary to the claim language and specification, and conflates novelty with subject matter eligibility.

First and foremost, Plaintiff relies on purported improvements in autonomous vehicles, such as “fleet learning,” where vehicles learn from one another. Saber Decl. ¶ 35 (“[P]rior art systems lacked the ability to *learn from a driver’s response to a circumstance and share learned responses across a fleet of vehicles so that those vehicles can respond autonomously to a similar situation.*”) (emphasis in original). Indeed, Plaintiff refers to its patents as the “Autonomous Vehicle Patents” and the “Autonomous Vehicle Simulation Patents.” Compl. ¶ 2 (emphasis added). But the claims require neither vehicles nor fleet learning, let alone “autonomous vehicles.” *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on the language of the Asserted Claims themselves.”); *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1294 (Fed. Cir. 2020) (noting that the “‘directed to’ analysis … depends on an accurate characterization of what the claims require and of what the patent asserts to be the claimed advance”).

Regarding the first alleged technical solution to “coded responses,” the Complaint claims that prior art systems “lack[ed] a way to learn [the] operation of a device or system and enable autonomous operation of a device or system.”⁵ Compl. ¶ 41 (quoting ’344 Patent, 1:39-47); *see also* Saber Decl. ¶ 29. The claims, however, do not recite a “way” to learn, and instead generically recite that the digital pictures correlated with instructions are “learned in a learning process.” ’449

⁵ Dr. Saber describes such prior art systems as using “pre-coded responses.” Saber Decl. ¶ 34.

Patent, 160:32-41 (claim 1). But a “learning process” is not a technical solution; it is an abstract idea, an entire field of study that the asserted patents have laid claim to, pre-empting any *actual, concrete* implementations of a learning process to perform autonomous operation. Although Plaintiff focuses on autonomous vehicles, the asserted claims extend to *any* device automating *any* task. Where “claims are not limited to any particular subject matter” and “effectively cover any solution to an identified problem,” it raises preemption concerns. *Societa*, 2019 WL 1102683, at *10 (citing *Elec. Power Grp.*, 830 F.3d at 1356); *see also Alice*, 573 U.S. at 216 (describing the “concern that drives th[e] exclusionary principle [of § 101] as one of pre-emption”).

The second alleged technical solution to “lack of training set diversity” is neither discussed in the asserted patents nor solved by the claims. Plaintiff cites to Dr. Saber’s declaration stating that “the prior art systems lacked the ability to *learn from a driver’s response to a circumstance and share learned responses across a fleet of vehicles so that those vehicles can respond autonomously to a similar situation.*” Compl. ¶ 57 (citing Saber Decl. ¶ 35) (emphasis in original). But even accepting Dr. Saber’s statement regarding the prior art as true, the claims do nothing more than claim the bare concept that digital pictures (or circumstances) correlated with instructions are “learned in a learning process.” Thus, the claims do not “focus on a specific means or method that improves the relevant technology,” but rather are “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016).

Finally, Plaintiff relies on the Notices of Allowance in the prosecution histories, in which the examiner concluded that certain elements were missing from the prior art of record. Compl. ¶¶ 41, 56 (citing Saber Decl. ¶¶ 30-32). The purported novelty of the claims, however, is not the relevant inquiry for a § 101 analysis. *Diamond v. Diehr*, 450 U.S. 175, 188-89 (1981) (“The

‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.”).

2. Autonomous Application Patents ('134, '585 Patents)

The Autonomous Application Patents are directed to the same underlying abstract idea as the Autonomous Device Patents, and they fail *Alice* step one for the same reasons discussed above.⁶ As shown in representative claim 1 of the '585 patent in Exhibit 1, the Autonomous Application Patent claims broadly recite: **1)** correlating pictures⁷ with instructions and storing the correlations; **2)** receiving a new picture; **3)** comparing the new picture with the stored pictures; and **4)** executing an instruction for operating the object of the application program. This characterization of what the claims are “directed to” is precisely how Plaintiff characterizes the claims in the Complaint. *See Compl. ¶¶ 72-73.*

The primary difference in the Autonomous Application Patent claims is that they recite automating a digital object or avatar instead of a physical device. This difference, however, does not change the fact that the claims are directed to the abstract idea of learning to perform a task.⁸ *See Content Extraction*, 776 F.3d at 1347 (rejecting argument that “claims are not drawn to an abstract idea because human minds are unable to process and recognize the stream of bits output

⁶ Plaintiff makes the same arguments for why the Autonomous Application Patents are not directed to an abstract idea that it does for the Autonomous Device Patents. *See Compl. ¶¶ 76-77* (citing Saber Decl. ¶¶ 61, 67, 69).

⁷ The claims also permit “object representations” instead of pictures, which does not alter the 101 analysis.

⁸ The specification describes that “[o]perating an object (i.e. Object 180, etc.) of an application includes performing *any operations* on or with the object.” '585 Patent, 152:29-31 (emphasis added); *see also id.* at 158:35-37 (“[A]n operation includes any operation that can be performed by, with, or on the application.”).

by a scanner” as “the claims in *Alice* also required a computer that processed streams of bits, but nonetheless were found to be abstract”). Accordingly, the analysis in the Section IV.B.1, *supra*, regarding limitations 1, 2, 3, and 4 of the Autonomous Device Patents applies equally to the Autonomous Application Patents.

* * *

Thus, all asserted claims are directed to the abstract idea of performing a task based on matching a current circumstance with a previous learned circumstance—i.e., correlating pictures with instructions, comparing new pictures with previous pictures, and autonomously performing a manual task—and therefore fail *Alice* step one.

C. *Alice* Step Two: The Asserted Claims Lack an Inventive Concept

The elements of the asserted patents do not add an “inventive concept” to “transform” the claimed abstract idea into patent-eligible subject matter. *Alice*, 573 U.S. at 221. This is a typical *Alice* step two case of claims applying an abstract idea in a technological environment, which is not an inventive concept. *See Intell. Ventures I LLC v. Cap. One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (“A simple instruction to apply an abstract idea on a computer is not enough [to establish an inventive concept].” (citing *Alice*, 573 U.S. at 223)).

1. The Claim Elements Recite Conventional Computer Components Performing Their Routine Functions

The recited components are all conventional computer components performing their routine functions. Representative claim 1 of the ’449 patent recites the following components: “one or more processor circuits,” “a memory,” a “first physical device [that] includes an actuator,” an “optical camera,” and an “artificial intelligence unit.” Representative claim 1 of the ’585 patent recites only “one or more processors” and “one or more memories.”

Processor circuits – The specification describes a “Processor 11” as “any logic circuitry that can respond to or process instructions fetched from memory 12 or other element” ’449 Patent, 60:4-38. Courts have found processors to be a “well-known, generic component[].” *See Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1352 (Fed. Cir. 2021) (quoting district court in affirmance).

“Memory” – The specification describes a “Memory 12” as “one or more memory chips capable of storing data and allowing any storage location to be accessed by processor 11 and/or other element.” ’449 Patent, 60:39-59. Courts have found memory to be a “generic component[].” *SynKloud*, 490 F. Supp. 3d at 818.

“Device [that] includes an actuator” – The specification describes “[v]arious embodiments of the disclosed devices” that “can be provided or implemented on any type or form of computing, computing enabled, or other device.” ’449 Patent, 59:18-30. Claim 1 of the ’449 patent is the only asserted claim in the Autonomous Device Patents that requires an “actuator.” The specification generically describes an “actuator” as a component that “comprises the functionality for implementing movements, actions, behaviors, maneuvers, and/or other mechanical or physical operations.” *Id.* at 69:26-29.

Optical Camera / Sensor – The ’449 patent does not define “optical camera,” but does describe a “Picture Capturing Apparatus 90” that “may capture any light ... across the electromagnetic spectrum onto a light-sensitive material.” *Id.* at 69:55-58. The ’974 patent describes a sensor as a component that “comprises the functionality for obtaining or detecting information about its environment, and/or other functionalities.” ’974 Patent, 69:4-7, 69:7-70:25 (listing types of sensors, including a camera). Courts have found sensors to be generic computer components. *iLife Techs., Inc. v. Nintendo of Am., Inc.*, 839 F. App’x 534, 538 (Fed. Cir. 2021).

“Artificial intelligence unit” – Neither the claims nor the specification describe what hardware the “artificial intelligence unit” comprises, but the specification depicts it as part of the “Unit 100,” which “comprises **any hardware, programs, or a combination thereof**” and “comprises the functionality for learning the operation of Device 98 in various visual surroundings.” ’449 Patent, 70:30-33 (emphasis added). The artificial intelligence unit is otherwise described functionally. ’449 Patent, 88:45-89:2; *see also* ’974 Patent, 96:27-52; ’583 Patent, 88:62-89:19; ’134 Patent, 98:14-16; ’585 Patent, 99:64-100:23. Moreover, the specification confirms that there is no inventive concept with respect to the Artificial Intelligence Unit. *See* ’449 Patent, 95:3-9 (“In general, Knowledgebase 530 may be or include **any data structure or arrangement capable of storing the knowledge** of a device’s operation in various visual surroundings.”), 95:32-47 (“The disclosed systems, devices, and methods are **independent of the artificial intelligence model and/or technique used and any model and/or technique can be utilized** to facilitate the functionalities described herein.”) (emphasis added).

Furthermore, the functions performed by these generic computer components—collecting, associating, and comparing data—are among the most routine functions of computers. *See, e.g.*, *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“The steps in [Plaintiff’s] claims (e.g., arranging, storing, retrieving, sorting, eliminating, determining) are conventional, routine, and well-known. They involve the normal, basic functions of a computer.”); *see also RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (finding claims ineligible that were similar to claims “directed to the abstract idea of organizing information through mathematical correlations.”); *Blix Inc. v. Apple, Inc.*, C.A. No. 19-1869-LPS, 2020 WL 7027494, at *5 (D. Del. Nov. 30, 2020) (“Claim 17’s method for ‘controlled pre-interaction’

merely recites the conventional steps of gathering, categorizing, organizing, and comparing data.” (citing *Versata*, 793 F.3d at 1335)).

Plaintiff relies on the declaration of Dr. Saber, who opines that claimed features were not “well-understood, routine, or conventional” sixteen times in his declaration. Saber Decl. ¶¶ 41- 43, 45-46, 50-53, 54-55, 62- 65, 68-69. But in almost every case, Dr. Saber just repeats the claim language followed, without more, by the conclusory assertion that the claimed features “were not well-understood, routine, or conventional.” In the remaining cases, Dr. Saber discusses embodiments from the specification followed, without more, by the same conclusory assertion. *Id.* ¶¶ 43, 53, 65. “This bald assertion does not satisfy the inventive concept requirement.” *Move, Inc. v. Real Est. All. Ltd.*, 721 F. App’x 950, 957 (Fed. Cir. 2018) (rejecting expert testimony that a step was “neither routine nor conventional” as conclusory); *see also Societa*, 2019 WL 1102683, at *9 (finding that conclusory expert testimony “cannot be enough to create a genuine issue of material fact with regard to unConventionality”).

2. The Ordered Combinations Merely Apply the Abstract Idea in a Technological Environment

Viewed as a whole, the asserted claims—both for the Autonomous Device Patents and the Autonomous Application Patents—are nothing more than an attempt to claim the abstract idea of learning to perform a task. The purpose of the “inventive concept” requirement is to “ensure that the claim is more than a drafting effort designed to monopolize the abstract idea.” *Alice*, 573 U.S. at 221 (internal quotation marks, citation, and brackets omitted). As such, the inventive feature in a patent cannot be the abstract idea itself. *See Mayo*, 566 U.S. at 72-73 (explaining the inventive concept must be “significantly more” than the abstract idea itself); *see also BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (noting that “a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept”).

The asserted claims effectively cover any implementation of learning to autonomously operate an electronic device or application, monopolizing the abstract idea. The claims recite result-based, functional limitations—such as “learn[ing],” “anticipat[ing],” “match[ing],” and “correlat[ing]”—without specifying how the results must be achieved. The specification of the ’449 patent states that “[t]he disclosed systems, devices, and methods are *independent of the artificial intelligence model and/or technique used and any model and/or technique* can be utilized to facilitate the functionalities described herein.” ’449 Patent, 95:36-47 (emphasis added).

As discussed above, the asserted claims have no subject matter limit; they cover any device or application performing any operation. And although individual claims may be limited to evaluating a specific type of data, like pictures, other claims encompass evaluating any “circumstance” or “object representation.” The Federal Circuit “has noted that claims that are ‘so result-focused, so functional, as to effectively cover any solution to an identified problem’ are frequently held ineligible under section 101.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1265 (Fed. Cir. 2016).

* * *

The claims recite only conventional computer components performing their routine functions, and when considered as a whole, the claims merely apply an abstract idea to a technological environment. Accordingly, the asserted claims do not recite an inventive concept and fail *Alice* step two.

V. CONCLUSION

For the foregoing reasons, the Court should dismiss Plaintiff’s claims with prejudice.

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January 13, 2023

CERTIFICATE OF SERVICE

I hereby certify that on January 13, 2023, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on January 13, 2023, upon the following in the manner indicated:

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